

Appl. No. 09/881,229
Amdt. Dated August 10, 2005
Reply to Office action of May 18, 2005
Attorney Docket No. P14395US1
EUS/J/P/05-3184

REMARKS/ARGUMENTS

Claim Amendments

The Applicant has amended claims 22 and 23. Applicant respectfully submits no new matter has been added. Accordingly, claims 2-23 and 26-28 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

Examiner Objections - Claims

Claims 21-23 were objected to because of informalities. The Applicant appreciates the Examiner's thorough review of the claims. The Applicant has amended the claims as suggested by the Examiner in order to correct the informalities. The Examiner's consideration of the amended claims is respectfully requested.

Claim Rejections – 35 U.S.C. § 103 (a)

Claims 2-6 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Spear (US006192037B1) in view of Hess, et al. (US005471670A). The Applicant respectfully traverses the rejection of these claims.

The Applicant's invention discloses a system for connecting "orphaned" (disconnected) base transceiver stations to a new base station controller. In a Radio Access Network (RAN) BSCs control different sets of BTSs. The present invention takes advantage of the RAN where every node can talk to every other node. A prioritized list of alternate BSCs is stored in each BTS with the connected BSC having the highest priority. If communication between the BSC and the BTS is interrupted, the BTS consults the list of BSCs that are acceptable, to negotiate a handover request. The BTS then contacts each BSC in the list in priority order until a BSC accepts the request.

The Applicant respectfully directs the Examiner's attention to independent claim 3.

3. (Previously Presented) In a mobile telecommunications system that includes a plurality of base station controllers, a method for

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handling a base transceiver station that has become orphaned as a result of a loss of a primary base station controller that normally controls the base transceiver station, the method comprising:

determining that contact has been lost between said base transceiver station and said primary base station controller, wherein said base transceiver station includes a memory having a list identifying base station controllers by which said base transceiver station is willing to be controlled;

identifying a secondary base station controller from among said plurality of base station controllers to adopt said base transceiver station, said base transceiver station contacting base station controllers identified in said list one at a time until said secondary base station controller is identified; and

effecting a handover of said base transceiver station from said primary base station controller to said secondary base station controller.

The Spear reference appears to disclose a method for changing connection in a communication system. Basically a BTS is connected to multiple base station controllers for redundancy. Spear discloses a solution for the problem of dropping calls due to the inability to inform the MSC that the calls have moved to a different BSS. The Spear reference uses links to couple two (and three) BSSs. An individual BTS is connected to a first and second BSC at the same time. As noted in Spear, if a first link goes down, the communication is changed to the second link and thus the second BSC. Further, if there is a third link connected to the BTS, the communication can be changed to the third link if necessary. (Col. 3, lines 26-32, and Col. 59-63) Basically, a plurality of BSCs is connected to a BTS with at least one BSC serving as backup and if one goes down, the BTS shifts connections to the backup by using the established link.

The Hess reference appears to disclose a method for handing off a communication occurring on one "communication resource" to another "communication resource". Hess discloses determining the usability of communication channels to ascertain when to hand the communication off from one channel to the other. Hess uses confusing terminology to describe the elements of the invention. "Communication resource" is one of the confusing terms. As defined in the background of the invention a communication resource is "...typically radio frequency channels that occupy

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predetermined bandwidths or time slots in predetermined time frames." (Col. 1, lines 54-58). The Hess reference discloses a communication unit (determined to be, i.e. a mobile phone) maintaining a list of alternate communication resources (channels) according to their signal "usabilities". (Col 6, line 28-33). Essentially, the Hess reference discloses a handover method between radio channels by monitoring the signal usability of another channel and switching to the channel with the best "usability".

In the Applicant's invention a BTS maintains a prioritized list of BSCs that are predetermined to be acceptable to the BTS and the BTS initiates a connection to a predetermined BSC. In the Hess reference, a mobile phone maintains a list of communication channels and the mobile phone switches between channels based on the QoS. What is unique to the Applicant's invention, and what is not suggested in the references, is maintaining a list of acceptable BSCs in each BTS and when the connection between a BSC and the BTS goes down, the BTS uses the list to make a new connection.

Therefore, even if one skilled in the art were motivated to combine Spear and Hess as suggested by the Detailed Action, the combination would still fail to render claims independent claims 3, and 26 unpatentable for at least the reason that the combination fails to disclose each and every claimed step. Furthermore, the depending claims 2, and 4-6 contain the same novel limitations and the Applicant respectfully requests the withdrawal of this rejection.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Spear (US006192037B1) in view of Hess et al as applied to claim 6 above, and further in view of Hendershot (US004817126). The Applicant respectfully traverses the rejection of this claim.

The Hendershot reference is cited for disclosing a random amount of time before transmitting. However, Hendershot does not supply the missing step of the BTS contacting BSCs in priority order from a list maintained in the BTS. The Applicant respectfully requests the withdrawal of this rejection.

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Claims 8-10, 13-15, 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Spear in view of Hess as applied to claim 2 above, and further in view of Logsdon et al (US005890054A). The Applicant respectfully traverses the rejection of these claims.

The Logsdon reference discloses that a mobile station broadcasting a distress packet requesting registration through an intermediary station. However, Logsdon fails to provide the missing element of a BTS contacting BSCs in priority order from a list of BSCs maintained in the BTS. The Applicant respectfully requests the withdrawal of the rejection of these claims.

Claims 11 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Spear, Hess and Logsdon et al as applied to claim 10 above, and further in view of Hendershot. The Applicant respectfully traverses the rejection of these claims.

Hendershot is cited here for disclosing waiting a random amount of time before transmitting in order to avoid collisions. Hendershot fails to provide the missing element of a BTS contacting BSCs in priority order from a list of BSCs maintained in the BTS. The Applicant respectfully requests the withdrawal of the rejection of these claims.

Claims 16, 17, 18, 27 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Spear in view of Hess as applied to claim 3 above, and further in view of Nakamura et al (US005822361A). The Applicant respectfully traverses the rejection of these claims.

The Nakamura reference is cited for a master base station continuously transmitting a frame to slave base stations and when one of the frames is not received, contact between the master and slave base stations is considered to be lost. The Applicant's invention does not involve master/slave base stations and the Nakamura reference lacks the missing element of a BTS contacting BSCs in priority order from a list of BSCs maintained in the BTS. The Applicant respectfully requests the withdrawal of the rejection of these claims.

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Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Spear in view of Hess et al as applied to claim 3 above, and further in view of Naqvi (US006625420) of the claimed invention. The Applicant respectfully traverses the rejection of this claim.

The Naqvi reference is cited for readopting when connection is possible and supports the cite by a passage in Naqvi that states the MSC is again ready to receive traffic. (col 13, lines 13-31). The Applicant respectfully asserts that the MSC is not involved in the adoption of the BTSs. A list of prioritized BSCs is contacted for "adoption" until a good match is found and when the number one BSC (the original BSC that was connected to the BTS) on the priority list comes available the BTS initiates a handover request to the original BSC. Additionally, the Naqvi reference fails to disclose the missing element of a BTS contacting BSCs in priority order from a list of BSCs maintained in the BTS. The Applicant respectfully requests the withdrawal of the rejection of this claim.

Claims 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Spear, Hess and Naqvi et al as applied to claim 21 above, and further in view of Logsdon et al. The Applicant respectfully traverses the rejection of these claims.

As noted above Logsdon is cited for disclosing a mobile station broadcasting a distress packet requesting registration through an intermediary station. However, Logsdon fails to provide the element missing from the Spear, Hess and Naqvi - that of a BTS contacting BSCs in priority order from a list of BSCs maintained in the BTS. The Applicant respectfully requests the withdrawal of the rejection of these claims.

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CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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